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Descriptions of Some New Species of Neotropical Hesperiiidae (Lepi- doptera, Rhopalocera)

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The specimens from which the following descriptions of new species are made are all in the collection of the American Museum of Natural History.

Where reference is made to the venation of the wings by number, it follows the English system of numbering the veins of each wing from the lowest vein upward.

Urbanus plinius, new species

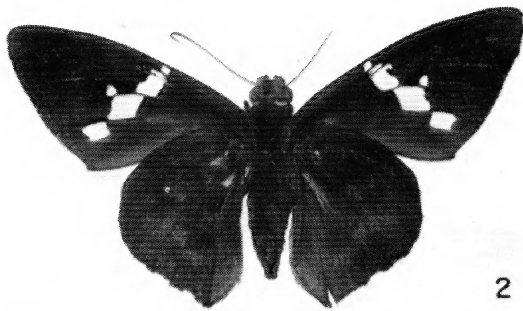
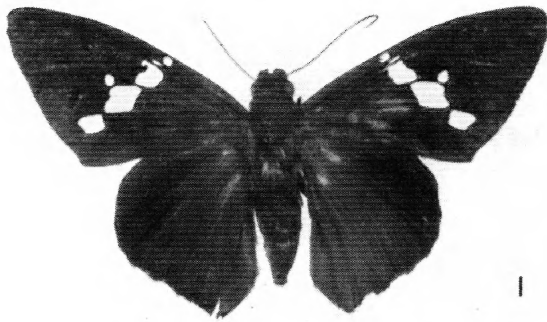
Figures 3, 4, 17

MALE: The upper side of all wings is brown. On each primary the basal area is narrowly and lightly overscaled with bluish which becomes greenish outwardly and extends along three-quarters of the inner margin. There is the usual transverse discal band of four white hyaline spots and the similar spot near the middle of interspace 3 found in the group of *Urbanus* comprising *proteus* Linnaeus and its close allies. Each primary has three small subapical spots in interspaces 6, 7, and 8. The two upper ones are approximately the same length, elongate and superimposed; the lower one is much smaller and extends from just under the outer edge of the spot in space 7 outwardly to a little beyond it, the outer side slightly curved and the inner side slightly excavated. The end of the cell

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and the veins outwardly are faintly darker. The fringes are lightly checkered. There is no costal fold.

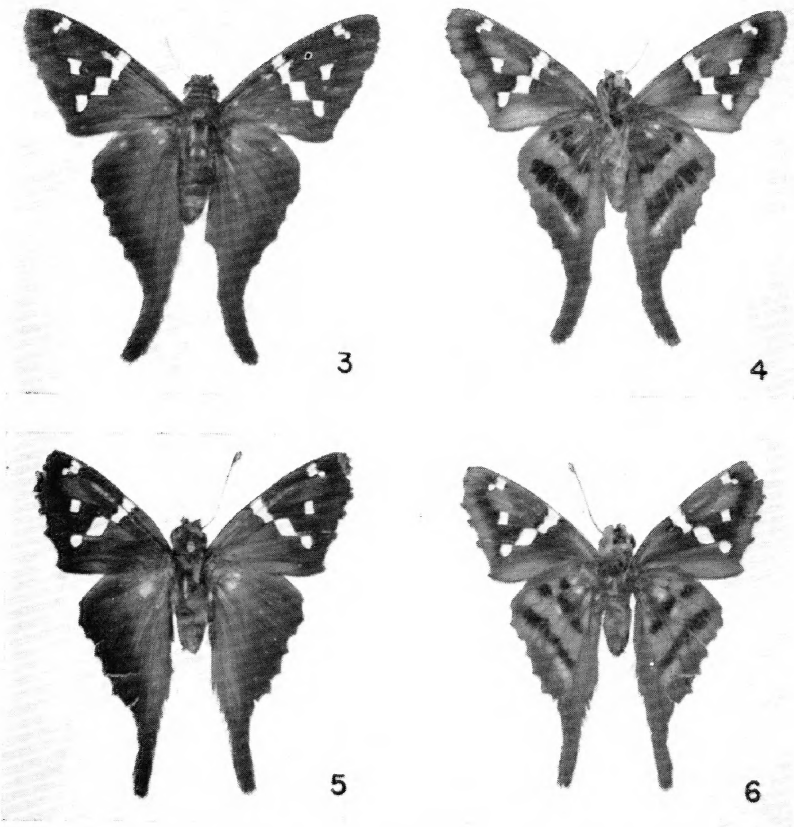
Each secondary has the cell, the inner two-thirds of the basal area, and along the abdominal fold to the beginning of the tails heavily overscaled with blue hair scales, which become slightly greenish along the outer edge of this area. The tails are approximately 10 mm. long. The fringes above the tails are lightly checkered.



FIGS. 1, 2. *Astraptes hercules*, new species. 1. Upper side. 2. Under side. Natural size.

On the under side the ground color of all wings is much paler than on the upper side except on the tails where it is dark. The inner margin and part of interspace 2 of the primaries are paler than above that area. The hyaline spots of the upper side of these wings are repeated and narrowly bordered with darker brown. There are scattered whitish scales over the end of the cell beyond the white hyaline spot and towards the outer

margin of the wings, and these group to form an ill-defined white bar at the end of the cell. There is a prominent darker brown band from the costal margin to interspace 2 outwardly bordering the subapical spots and the spot in interspace 3; in interspace 2 the band is produced inwardly to the hyaline spot in that interspace. The inner edge of the band



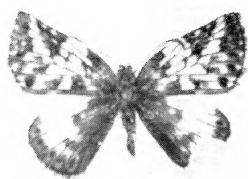
FIGS. 3, 4. *Urbanus plinius*, new species. 3. Upper side. 4. Under side. Natural size.

FIGS. 5, 6. *Urbanus prodicus*, new species. 5. Upper side. 6. Under side. Natural size.

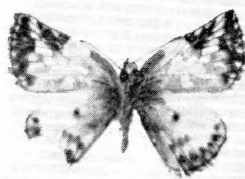
is approximately even, but the outer edge is extended a little along each vein. The veins are slightly darkened from the band to the outer margin. The secondaries have the usual subbasal and discal bands of dark brown spots. The subbasal band consists of two small, irregularly squarish, separated spots in interspace 7, the inner one slightly larger than the outer one; a narrow, white-bordered spot across the cell directly under

the outer of the two spots in interspace 7; another somewhat double spot, feebly white bordered below the base of vein 2. The somewhat broad discal band from vein 7 downward is cut into five spots by the paler veins; the lowest spot is much larger than any of the others and is outwardly narrowly bordered with white. The inner edge of this band of brown spots is nearly but not quite even; the outer edge is more erose.

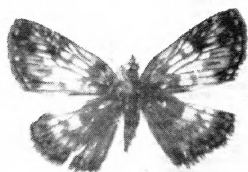
The upper side of the head and the thorax is greenish; the abdomen is brown, with some faintly greenish scales. Beneath, the palpi are grayish white. There is a white band behind and below each eye. The pectus is



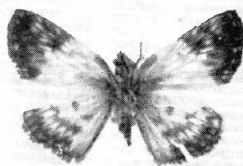
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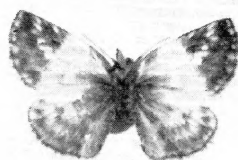
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10



11



12

FIGS. 7, 8. *Potamanaxas bana*, new species. 7. Upper side. 8. Under side. Natural size.

FIGS. 9, 10. *Potamanaxas tunga*, new species. 9. Upper side. 10. Under side. Natural size.

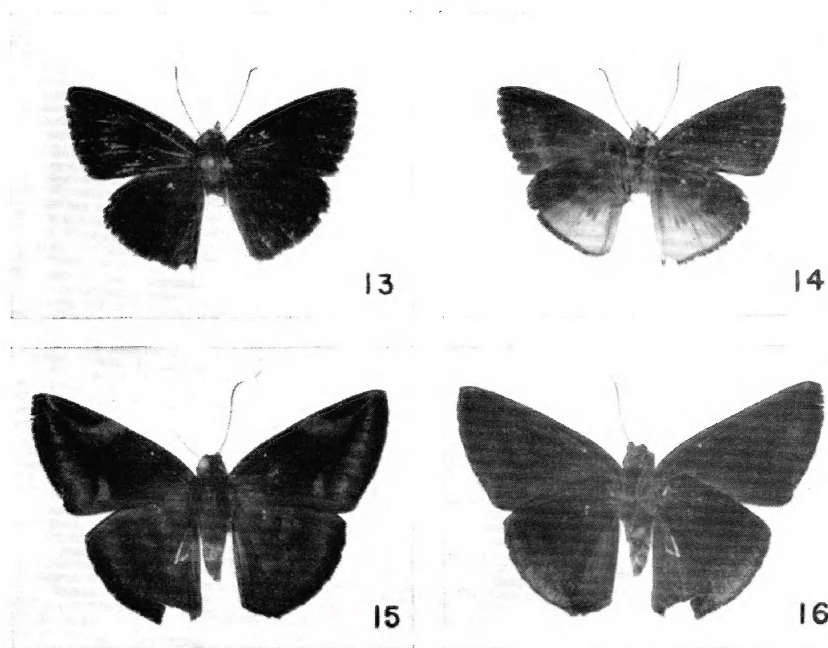
FIGS. 11, 12. *Potamanaxas quira*, new species. 11. Upper side. 12. Under side. Natural size.

grayish. Thorax, abdomen, and legs are brown, with grayish hairs. The antennae are missing.

Length of one primary wing, 23 mm.

TYPE MATERIAL: Holotype, male, Santa Cruz, Bolivia.

The group of *Urbanus* to which *plinius* belongs contains a number of confusingly similar species, so that an examination of the genitalia is usually necessary to identify them positively. The genitalia of *plinius* materially differ from those of any of the others.



FIGS. 13, 14. *Pythonides pescada*, new species. 13. Upper side. 14. Under side. Natural size.

FIGS. 15, 16. *Achlyodes munroei*, new species. 15. Upper side. 16. Under side. Natural size.

Urbanus prodicus, new species

Figures 5, 6, 18

MALE: The upper side of all wings is brown. The primaries have the same formation of the discal band of four spots, the outer spot near the middle of interspace 3 and the three subapical spots all white hyaline, as found in *plinius*. The spots of the discal band differ a little in shape from those of *plinius*, and the spot in interspace 1 is noticeably shorter. The spot in interspace 7 of the subapical series is a little shorter than the one

in interspace 8, and it extends a little inward of that spot. The fringes are checkered, a little more noticeably so than in *plinius*. There appears to be a very feeble costal fold.

The secondaries are similar to those of *plinius*, the fringes checkered a little more plainly. The tails are approximately 10 mm. long.

On the under side the ground color of all wings is much paler, except on the tails where it is dark. On the primaries the hyaline spots of the upper side are repeated. There is a darker brown band from vein 9 enclosing the subapical spots and extending downward to the spot in interspace 1 which it borders on the outer edge, and it is produced a little outwardly along the veins from the apex of the wing to vein 2. In interspace 3 this brown band is extended inward, a little paler, to the base of that interspace; in interspace 2 it is extended inward to the hyaline spot in that interspace. The hyaline costal and cell spots are bordered with brown. The end of the cell is faintly outlined with white. The secondaries have a faint violet sheen and the usual darker brown bands. The subbasal band is composed of two somewhat squarish spots in interspace 7, well separated, the outer one larger than the inner one, an outwardly white-edged spot across the cell, lying exactly between the two spots above it; and another spot below the base of interspace 2. The discal band is rather narrow, the widest part being between veins 4 and 7; above vein 7 it is only faintly extended to the outer angle, and the lowest spot is outwardly bordered with white, opposite the end of the cell the band is extended a little inwardly and forms a noticeable point.

The upper side of the head is grayish brown, with some scales of faintly greenish sheen. The thorax and abdomen are greenish or bluish. Beneath, the palpi and pectus are grayish yellow; the thorax and legs are grayish, and the abdomen is brown. The antennae are blackish brown above, paler beneath, the club and apiculus yellow.

Length of one primary wing, 22 mm.

TYPE MATERIAL: Holotype, male, Jalapa, Mexico (Schaus).

This is another of the group of *proteus* Linnaeus and allied species of *Urbanus*, best determined by examination of the genitalia.

Astrartes hercules, new species

Figures 1, 2, 19

MALE: The upper side of the wings is blackish brown, with a bluish sheen. Primaries: each wing has dull greenish, hair-like scales at the base, in interspace 1, and on the inner margin. There is a band of five white hyaline spots running from just before the center of the costal

margin diagonally across each wing towards the outer margin, consisting of a very small spot on the costal margin over a larger one across the cell: a still larger one in interspace 2, the inner side of which extends slightly under the cell spot; another approximately the size of the cell spot in interspace 1 a little outward of the spot in interspace 2, the upper side of which lies against vein 2; and a very small spot, approximately the size of the costal spot, near the base of interspace 3 and over the outer corner of the spot in interspace 2. The fringes are concolorous except between veins 1 and 2 where they are white. The costal fold is very feeble.

The secondaries have dull greenish, hair-like scales over the cell and the inner marginal half of each wing. The fringes are feebly checkered.

On the under side the ground color of all wings is a little paler than above. The primaries have a slightly bluish sheen and the inner margin much paler below vein 1. The discal band of white hyaline spots of the upper side is repeated, and there is a hazy, irregularly lunate dark spot beyond the end of the cell. The secondaries are sparsely overscaled with pale lilacine and yellowish scales which form hazy indefinite bands and spots but leave a squarish spot of ground color just beyond the middle of the interspace below vein 2 and another similar spot beyond the end of the cell.

The upper side of the head and thorax is dull greenish, the abdomen dark brown. On the under side the palpi are brown, intermixed with white scales. There is a band of white scales behind and below each eye. The pectus is brown. The thorax, legs, and abdomen are brown. The antennae are black on the upper side; on the under side they are mostly pale brown, and the apiculus is yellowish.

Length of one primary wing, 33 to 34 mm.

TYPE MATERIAL: Holotype, male, Santa Cruz, Bolivia. Paratype, one male, Zumbi, Rio Zamora, Ecuador, 700 meters, October 29, 1941.

In superficial appearance *hercules* is quite similar to the *Astrartes* group comprising *narcosius* Stoll, *samson* Evans, *mura* Williams, *colossus* Herrich-Schäffer, and *parisi* Williams, but the form of the male genitalia of these species differs materially from that of the genitalia of *hercules*.

Pythonides pescada, new species

Figures 13, 14, 20

MALE: The ground color of the upper side of both the primaries and the secondaries is dark brown, unmarked. The fringes are concolorous.

On the under side of all wings the ground color is a paler brown. The inner marginal area of each primary wing is narrowly paler. Each secondary wing has a broad whitish area from vein 4 to the anal angle, below vein 2 extending inward almost to the base, and crossed by two ill-defined dark bands, one below the cell and the other submarginal. There is a hazy, ill-defined bar of scattered whitish scales at the end of the cell.

On the upper side the head and the body are dark brown, the head with some whitish scales in front of the antennae. The palpi beneath are brown, with some whitish scales intermixed. There is a white spot below each eye. The thorax is paler brown. There are a long, dense, brown hair tuft and a single upper and lower pair of spurs on each hind tibia. The antennae are blackish brown on both sides, the club a little paler on the under side.

Length of one primary wing, 18 mm.

TYPE MATERIAL: Holotype, male, Rio Pescado, Ecuador, May 28, 1922, 1400 feet.

Superficially *pescada* resembles *Ouleus dilla* Evans, also from Ecuador, but *dilla* differs materially in the form of genitalia and also lacks the hair tuft on each hind tibia. The form of the genitalia of *pescada* is quite similar to that of the genitalia of *Pythonides juxta* Bell, but that species is quite dissimilar in superficial appearance.

Potamanaxas bana, new species

Figures 7, 8, 21

MALE: This species resembles the *laoma* Hewitson group in the general pattern of the maculation on both sides of all wings.

On the primaries the spots are whitish or yellowish white, and the two elongated spots in the cell are divided by a slightly curved line instead of the zigzag line of *laoma*. The three subapical spots and the two spots below them in interspaces 5 and 4 form a slanting line to the discal band but are a little more developed and more prominent. The marginal row of small spots are better developed and more prominent. In each of interspaces 2 and 3 there are prominent, irregularly lunate submarginal white spots beyond the discal band, unlike the hazy spots in these areas of *laoma*. In interspace 1 the lower of the two spots of the outer pair beyond the subquadrate central spot is small, and its lower edge extends noticeably outward. Below vein 1 the prominent spot on the inner margin under the two outer spots of *laoma* is present in *bana* only as a few scattered scales, and these lie midway between the subquadrate central spot and the two outer spots.

On the upper side of each of the secondaries there is a broad white band which extends downward to vein 2 crossed by dark veins and divided by a wedge-shaped dark spot beginning rather hazily in interspace 4.

On the under side of the primaries the apical third of each wing is blackish brown, and all the whitish spots of the upper side lying in this area are clearly repeated, whereas in *laoma* these spots are usually hazy except the small one in the base of interspace 3. On the under side, the secondaries have the same general appearance as that of *laoma*: the white ground color, the dark spot in the end of the cell, the discal band of dark spots, and the submarginal band of triangular dark spots, enclosing white marginal spots, with a narrow dark marginal line. The discal row of dark spots in *bana* is short, consisting merely of a very narrow, hazy line across the middle of interspace 4 and followed by three small, better-defined dark spots, one in each interspace downward.

The body of this single specimen is rather badly worn, but the upper side of the head, thorax, and abdomen appears to be dark brownish, with some mixture of whitish scales. On the under side the palpi, pectus, thorax, and abdomen are grayish white. The antennae are black on the upper side and black spotted with white at each joint on the under side. The male genitalia differ greatly from those of any of the other members of this group.

Length of one primary wing, 16 mm.

TYPE MATERIAL: Holotype, male, vicinity of Banos, Ecuador, Rio Blanco, October 5, 1939, 1700–1900 meters (Clark MacIntyre).

Potamanaxas tunqa, new species

Figures 9, 10, 22

MALE: The ground color of the upper side of both primaries and secondaries is dark brown. Each primary wing has a discal band of rather small spots: one on the costal margin above the cell, grayish divided by the veins into three parts; two narrow, yellow-tinted elongate spots in the cell, vertically divided towards the end of the cell by a slightly angled line of the dark brown ground color, forming two inner elongate spots and two outer very small spots; a small yellow spot in the base of interspace 3; a whitish, elongate, wedge-shaped spot in the base of interspace 2; two small yellow spots near the base of interspace 1, followed outwardly by a larger spot, longitudinally divided, the upper part small and whitish, the lower part a little longer and yellow; followed outwardly by two superimposed, elongate, grayish spots which become yellow at their

outer extremities; below these last two spots is a yellowish gray streak on the inner margin of the wing. In interspaces 6, 7, and 8 there are three subapical, elongate, grayish spots which become yellow at their outer extremities, the upper spot the shortest and the lowest spot the longest. Below the subapical spots are two streak-like yellow spots, a small one in interspace 5 and a slightly longer one in interspace 4, these two streaks forming a line connecting the subapical spots with the spot in the base of interspace 3. In the costal area between the subapical spots and the discal band are some tiny spots, whitish or yellowish white, in the base of interspace 8 and in interspaces 9 and 10. Beyond the discal band but not reaching the outer margin of the wings there is a band of gray spots which become yellowish outwardly, the two upper spots rather small and ill defined, the two lower ones more prominent, all deeply cut by a narrow line of the dark brown ground color from inside outwardly towards the margin of the wing; separated from these spots by a narrow line of the dark brown ground color is a submarginal row of small but prominent yellow spots, two in interspace 1 and one each in every interspace above to the apex of the wing except in interspace 5 where there is either none or only a few scattered scales. There is a heavy black marginal line. The veins are all prominently blackish brown, darker than the ground color. The fringes are a little paler than the ground color.

Secondaries: Each wing has the costal marginal area above vein 8 entirely white; there is a yellowish white spot occupying the middle half of interspace 7; a yellow spot crossing the end of the cell, followed outwardly by a small yellow spot in interspace 5; there is a discal band of four small, ill-defined, yellow spots, one in each interspace from interspace 4 downward. Through the lighter areas of the wings the dark veins are prominent. The fringes are concolorous with the dark brown ground color except above vein 5 where they are outwardly white.

On the under side the ground color of all wings is whitish or yellowish white. The apical third of each primary is dark, somewhat as in *laoma trigga* Evans, and most of the spots in this area of the upper side are repeated here. Outside the heavy black marginal line there are some whitish scales at the base of the fringes. On the secondaries the cell of each wing has a dark brown spot, extending from the upper edge nearly across it, just before the end; another similar spot below it under the base of vein 2; a discal band of six dark brown spots, interrupted at vein 5, the three upper spots narrow, the three lower spots progressively wider, and all of them, together with the spot in the cell and the one below it, are lightly overscaled with pale scales of the ground color. In each interspace downward below vein 8, there is a marginal band of large, triangular dark

brown spots containing a marginal spot of the whitish ground color; the marginal pale spot in interspace 6 is larger and stands out more prominently than any of the others in the band. The whitish scales on the basal area and broadly along the abdominal margin, covering that part which on the upper side of the wing is dark brown, give a grayish appearance to these areas. There is a dark terminal line, beyond which there is a line of whitish scales on the base of the fringes. The fringes are dark brown up to vein 5, above which they are mostly whitish, with a few dark scales intermixed.

Top of the head is dark brown, with some grayish hairs intermixed. Top of thorax and abdomen is brown. Beneath, the palpi are grayish white, with a few dark scales intermixed. The pectus, thorax, and abdomen are grayish. The antennae are black on the upper side; black, narrowly spotted with white, on the under side.

Length of one primary wing, 16 mm.

TYPE MATERIAL: Holotype, male, Chinchin Grande, Tungurahua, Ecuador, December, 1939, 1400 meters (F. M. Brown). Paratype, male, Banos, Ecuador, June 17, 1939 (Clark MacIntyre).

Potamanaxas quira, new species

Figures 11, 12, 23

MALE: The upper side of all wings is brown. On each primary there are the usual discal band and other spots of the *laoma* group; all these spots are white. The discal band consists of a spot on the costal margin above the cell, divided into three parts by the veins; a spot in the cell not prominently divided longitudinally but the lower half towards the outer end is diagonally crossed by some scattered brownish scales; a long wedge-shaped spot in the base of interspace 2; a nearly square spot in the center of interspace 1, followed outwardly by two elongate streaks and inwardly by two basal spots; a longer streak on the inner margin under the two outer streaks. Three small subapical apical spots in interspaces 6, 7, and 8, that in interspace 6 very faint, and streaks in interspaces 3, 4, and 5 connecting the subapical spots with the discal band. There is a dot on the costal margin in interspace 11. There are a submarginal row of hazy, dark spots, a marginal row of hazy, white spots, and a dark terminal line. The fringes are dark, with occasionally a very few white scales intermixed.

On each secondary the costal margin above vein 8 is white. There are a long white spot in the center of interspace 7; a small triangular white spot in the base of interspace 6; a white spot in the end of the cell, ir-

regularly squarish, the upper half not reaching the end of the cell; a few whitish scales but no defined spot in the base of interspace 3; a discal band of six spots, interrupted at vein 5, the two upper ones in interspaces 6 and 5 white and the only ones well defined, all the lower ones hazy. There are a submarginal row of dark spots, a hazy marginal row of whitish spots, and a dark terminal line. The fringes are dark below vein 6; above there they are white.

On the under side the basal two-thirds of each primary is whitish, the apical third is dark, and in this area the spots of the upper side are repeated; the marginal row of hazy spots is more prominent. There are white scales on the base of the fringes in each interspace. On each secondary the basal area and below vein 1 are grayish, the rest whitish, with the usual dark cell-end spot, dark discal and submarginal bands of the *laoma* group, but all these dark spots present a somewhat diffuse appearance and do not stand out sharply.

The top of the head, thorax, and abdomen is brown, with a few grayish scales. On the under side the palpi are white, with a few dark scales. The pectus is white. The thorax and abdomen are grayish. The antennae are black on both sides, spotted with white on the under side.

Length of one primary wing, 15 mm.

TYPE MATERIAL: Holotype, male, Rio Quirata, Rio Opon region, north of Tunja, Boyaca, Colombia, latitude 6° 15' N., 500-700 meters, December 16, 1945 (Richter) (Frank C. Johnson collection).

This species seems to be allied to the *laoma* Hewitson group in general appearance and in the form of the male genitalia.

Achlyodes munroei, new species

Figures 15, 16, 24

MALE: The maculation on the upper and under sides of both the primaries and the secondaries of this species is extremely similar to that of *Achlyodes thraso papinianus* Poey. *Achlyodes munroei* is easily distinguished from *papinianus* on these superficial characters: the outer margin of the primary wing and that of the secondary wing is more nearly straight, being only slightly rounded instead of broadly rounded as in *papinianus*. The falcation of the primary wing of *munroei* is so extremely slight that it is barely noticeable; in *papinianus* it is prominent. The fringes of the primary wing of *munroei* are not pale at the end of vein 7 as they are in *papinianus*. On the secondary wing there is no spot outside the cell end in the discal band of pale spots; in *papinianus* a prominent

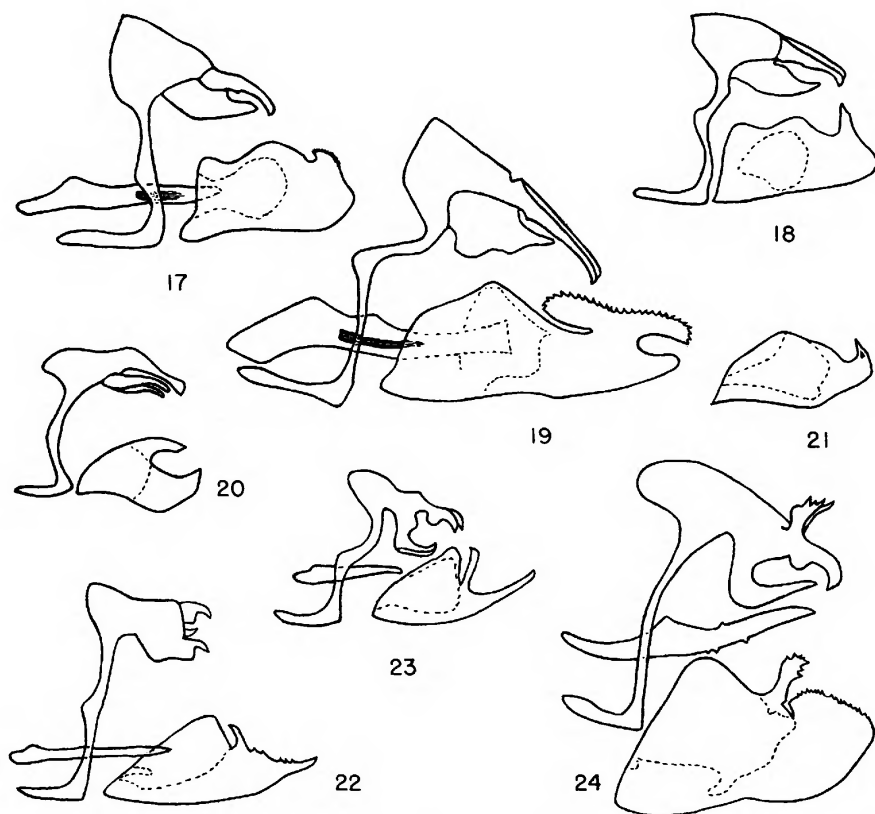
spot is usually present in this area, although in occasional individuals it is reduced in size.

Length of one primary wing, 22 mm.

TYPE MATERIAL: Holotype, male, and one male paratype, Santiago, Cuba (W. Schaus).

It may be that *munroei* is related to *Achlyodes minna* Evans from Bahia (type locality) and other parts of South America, a species we have not seen. The clasp of the male genitalia is similar.

With pleasure this species is named for Dr. Eugene G. Munroe of Ottawa, Canada.



FIGS. 17-24. Male genitalia. 17. *Urbanus plinius* Bell. 18. *Urbanus prodicus* Bell. 19. *Astraptes hercules* Bell. 20. *Pythonides pescada* Bell. 21. *Potamanaxas bana* Bell. 22. *Potamanaxas tunga* Bell. 23. *Potamanaxas quira* Bell. 24. *Achlyodes munroei* Bell.

